The Role of Algorithms and Social Media

*Preparation time: **30'***   *Teaching time: **1 x 60'***

Abstract

This lesson explores the role of social media algorithms in shaping the content users encounter on digital platforms. Algorithms influence the dissemination of all online information, including political discourse, and can contribute to the spread of misinformation. Students will analyze how these algorithms create "filter bubbles," reinforce biases, and influence public opinion. Additionally, the lesson will introduce practical strategies for recognizing algorithmic manipulation and diversifying news sources to enhance media literacy and critical thinking.

Online educational resources

- Studies about impact of algorithms on social media
- Online tools for news verification
- Case Studies on misinformation (elections, COVID-19)

Keywords

Algorithms, filter bubbles, social media, misinformation, media literacy, critical thinking

Lesson aim

The goal of this lesson is to help students develop a critical understanding of how social media algorithms shape the content they see and influence their perception of information. Through this lesson, students will learn to identify bias in their content feeds, develop strategies for diversifying their information sources.

Lesson outcome

By the end of this lesson, students will be able to:
- Explain how algoritms function and their role in shaping social media content
- Analyze the effect of algorithms on political discourse and how algorithms affect misinformations
- How to recognize filter bubbles and algorithmic bias

Lesson implementation process

min. 1 - 5: Introduction

- Begin Interactive Poll: "*How do you chose the news you read?*" or "Do you think that social media influences how you view certain topics"?
- Discussion: show students two different social media feeds (one conservative, one liberal) and ask them to guess how algorithms may influence what users will see or which users will see them.

min. 6 - 20: Collaborative Learning

- Discussion topics: What effect algorithms have on filters and recommended content on platforms like Tik Tok, Facebook, Twitter/X; Twitter' s impact on U. S. Elctions and how algorithmic promotion of content affected voter behavior; Research shows that over 50 % of Facebook users only see content aigned with their views, and just 14,7 % regulary see opposing viewpoints.
- Group activity: Seperate students into small groups and assign each group different algorithmic scenario. Groups analyze how these scenarios will affect users and present their findings.

min. 21 - 50: Practical Application

- Exercise: Students will open their social media feeds and note which topic appears the most. Discuss differences in feeds between students and how the way its personalised affects content diversity.
- Debate on algorithmic influence: *"Should social media platforms be regulated to prevent manipulation? "* or *"Do algorithms help or harm democracy?"*
- Fact checking exercise: Introduce students to online tools for verifying news credibility. Students examine real and fake news articles and determine their reliability.

min. 51 - 60: Conclusion

- Recap key points
- Reflective discussion: *"How can these skils help you navigate online information more effectively?"*

Materials / Tools

Video projector, laptop, internet connection, screenshots of different social media feeds, case study examples, powerpoint or prezi, canva